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An
Inaugural essay
on
Acute Gastritis
For the degree of Doctor of medicine
in the
University of Pennsylvania,
by
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of
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Before proceeding to a description of the particular disease, which forms the subject of the present essay: it may be proper to offer a few observations on the nature and pathology of inflammatory diseases in general. These will answer as general principles to lead us to a correct knowledge of the diseases of this class; and to guide us, in the management of them, to such means as will enable us to approach most closely and effectually, their exciting cause.

Inflammation, then, consists in an increased morbid action of the bloodvessels, propelling into them an unusual quantity of blood; increasing their irritability and excitability; and exciting the tension of the vessels beyond their natural tone. The symptoms present are, unusual heat, pain, redness, and swelling: the increase of heat arising from the more liberal disengagement of caloric, in consequence of the increase of circulation; the pain according to

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John Hunter. Cullen. and Hoffman from a spasm
of the vessels. analogous to cramp. tetanus &c; but
according to Sir A. Cooper, to pressure made by the
distended vessels on the nerves; the redness, from
the increased quantity of blood thrown into the
part, and from the capillary vessels becoming
injected, and the swelling from a similar cause

When confined to one particular part, without
affecting the general system, it is called topical
inflammation; when of the latter description, general
or constitutional inflammation. It is farther divided
into the phlegmonous and erysipelatous kinds:-
the former consisting in an inflammatory circum-
scribed affection of the skin and cellular mem-
brane, attended with pain, redness and tumefaction;
and, in which, any effusion that takes place, is con-
verted into pus; the latter, in an affection of the
skin externally, and of the mucous membrane in-
ternally, attended with a burning kind of pain,
and with swelling of a more moderate grade, which

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readily yields to pressure. It is to the former of these species of inflammation, that persons of a vigorous constitution, plethoric habit, and those who are in the prime of life are exposed; while the latter is more frequently incident to the weak, aged and those of a relaxed fibre. It is upon the mildness of the symptoms above mentioned, that a termination of inflammation in resolution depends, when they are violent, and discover a disposition to resist the proper remedies; suppuration is to be anticipated. The termination by resolution is always to be desired; that by suppuration is also favourable, if the part affected be situated externally, but greatly to be dreaded if situated internally; the evil of gangrene depends upon its extent and contiguity to important parts, as in the vicinity of the lungs, stomach &c; when situated internally, being beyond the reach of the proper applications, it is always of necessity fatal.

Such is a concise account of inflammation

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in general, wherever it may be situated. As its exis-
tence in different parts, different appellations are
appropriated; when seated in the stomach it is nam-
ed Gastritis. I shall now, by a very natural trans-
ition, pass to a consideration of the many and vari-
ous causes that have a tendency to produce this
most formidable and terrific disorder; and among
these, it may be remarked, that all the causes that
tend to induce inflammation, in general, also, in a
greater or less degree, tend to produce this disease.

Among the occasional causes, cold, ap-
plied in various ways, still holds a principal
place. There is no cause of this disease, so com-
mon as checking perspiration, by taking very
cold substances into the stomach. Acrid sub-
stances received in this viscus, especially, when
its mucous coat has been abraded, or so changed
as not properly to perform its office, may excite
Gastritis. It is to be recollectec, that those
articles which are most acrid to the taste, are

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not those which affect the stomach most. The strongest species are often taken into the stomach with perfect impunity; while the more insidious articles frequently affect it most powerfully.

All substances, however, which strongly affect the taste, tend more or less to irritate this viscous; and if their use be persisted in, by those who are strongly predisposed to this disease, and particularly those, who have lately laboured under an attack of it, tend to bring on a relapse. cathartics and emetics possess a peculiar power of irritating the stomach. it is not surprising, therefore, that we find the use of drastics cathartics and emetics, ranked amongst the causes of Gastritis. To this head belong, also, a certain class of poisons. the more irritating articles of diet may be ranked among the exciting causes of the disease. Few things prove more injurious to the stomach, than overindulgence. When food is taken, in too large a quantity, and that of an indigestible and



so that the distention is kept up for some considerable length of time, it may produce this disease.

It may also be produced, from acrid matter being generated within the body; as sometimes happens in various ulcerous affections of the fauces, oesophagus. A blow on the ^{1^o} region of the stomach, or wounds in the stomach or neighbouring parts, the dislocation of the ensiform cartilage, when it is dislocated, or broken, so that it presses on the stomach, may excite this disease. It may also be brought on from the sudden suppression of a haemorrhage and cutaneous eruptions; and from expelled or misplaced gout. The excessive use of ardent spirits may likewise be ranked among the exciting causes of Gastritis. Such are the principal or most common causes of this disease, but there are others whose operation appear to be involved in obscurity.

We frequently see most of the febrile affections accompanied with more or less inan-



-mation of the stomach and intestines; and this combination is so common, that Van Swieten and others have supposed, that the cause acted pri-
-marily on the stomach producing inflamma-
-tion of this organ. In eruptive fevers, it some-
-times supervenes on the sudden reception of the
eruption; and, probably from the great debility
which attends such cases, generally, soon rises to
gangrene.

When we consider the external situa-
-tion of the stomach, and the important
offices to which it is destined, in the animal
economy: it will immediately appear evident, that
an inflammation of it, is one of the most seri-
-ous and dangerous diseases to which the human
frame is subjected. Nor is it from these circum-
-stances alone that danger is to be anticipated, but
also from the difficulties which sometimes obscure
its diagnosis. We are informed, that in some cases
the only symptom present, is a pain in the great



toe; sometimes an acute sensation in the groin; sometimes an inflammation of the female pudendum, with pain and itching—sometimes a great intolerance of light and aversion to fluids, with many other symptoms of hydrocephobia.

These are however anomalous symptoms, and rarely appear. Its general symptoms are acute pain in the part, sensible to the touch, intense heat, excessive debility, irritability of the stomach, nausea, with violent vomiting and much thirst.

As the disease advances there is tension in the epigastric and umbilical regions, great prostration of strength, small pulse, hardened and not very quick; the progress of the disorder is very rapid. The symptoms are all highly aggravated the debility increases, the extremities become cold. There is fainting with weak pulse, wild eye and often low delirium; these are usually the precursors of gangrene or sphaecles and afford, of course, as was mentioned in



introductory remarks, a fatal prognosis of the disease. This affection is further dangerous, from the rapidity with which inflammation extends to contiguous parts, and the exposure of the intestines to its effects. There are also some other diseases with which it is apt to be confounded; it may be confounded with cramps and flatulent pain in the stomach; with an inflammation of the epigastric muscles and enteritis.

In discriminating between the first of these affections and inflammation of the stomach, we are principally governed by the state of the pulse; this is natural, in the former case or more so, by much, than in the latter; in this, too, there is often no vomiting, nor is it so frequently produced by ingesta as in Gastritis; nor does pressure excite so much pain, as in the latter affection.

In discriminating between this and an inflammation of the epigastric muscles, there are three circumstances by which we may be guided; 1.



pulse, instead of being small and weak, as in the former disease, is as strong as in most of the other phlegmasias; the pain, though as in the former, increased by pressure, is also increased by the motion of the diaphragm muscles, which is not the case in *Gastritis*; there is also little or no tendency to vomit, as is the case in *Gastritis*.

The diagnosis between this case of inflammation and enteritis, is founded on the following circumstances; the vomiting does not occur so soon after the receiving of food into the stomach, in the latter, as in former; there is also, in the latter, a twisting pain around the umbilicus, and the prostration is stronger, in enteritis, or neither so sudden nor excessive, as in *Gastritis*. Like other cases of inflammation, *Gastritis* is divided into two species, namely, the *Gastritis phlegmonosa* or deep seated inflammation of the stomach, that is, of the nervous or serous coats; and *Gastritis erysiphatica* or superficial inflammation when confined to



the cellular and villous coats. As might be supposed, from a consideration of the modes of operandi of the causes of Gastritis, the former species of the disorder is more a secondary than a primary affection, deriving its origin from the inflammation of the external coats. It is distinguished from the latter species of the disease, by a pain of a less acute and lancinating kind, by a less tendency to spread to the intestinal canal, and as it is supposed, by a superior violence of all the symptoms. Yet there are few symptoms afforded us sufficiently conclusive to enable us to discriminate between the two species without inaccuracy.

From the general character of the disease, it is presumed that a consideration of the time, during which the causes of Gastritis might have acted, aided by a comparison between the known powers of different substances, between the different degrees of irritability and excitability as indicated by the constitution, age &c. and between the



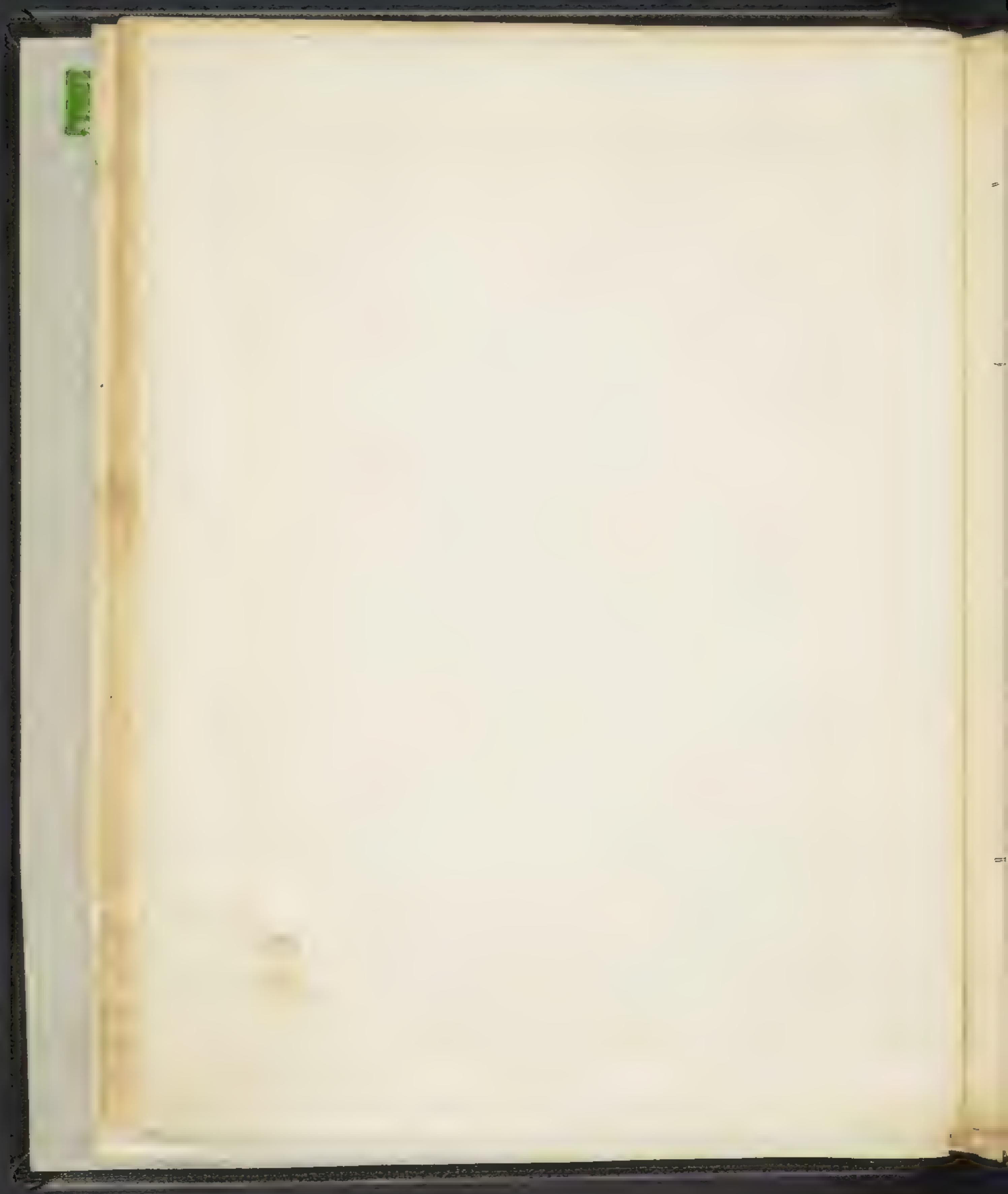
different symptoms of the disease, might lead us to a tolerably correct conclusion: Yet it is very obvious, that such means of judging could only be afforded, by attentive observation, accurate knowledge of the powers of different excitants of the disease, and extensive experience of their effects.

As in most of the other phlegmatical, venesecution is the remedy on which we place the most reliance, and, so far from being governed by the state of the pulse and apparent debility of the patient, we must proceed totally regardless of these, and detract blood to the amount of twenty or thirty ounces, should this not succeed, in subduing the disease, we must have recourse to it, as often as circumstances may require, and as Dr. Wilson has very justly observed, that contrary to the general rule we bleed in this disease with the view of increasing the strength of the pulse rather than diminishing it, and it is only as it



has this effect that it affords relief. After having practised general blood-letting to a sufficient extent, should the symptoms continue in a mitigated form, we may resort to topical bleeding, by cups and leeches; if these should fail to procure relief (which they will sometimes do) we must resort to blisters. and these instead of being small, as some practitioners have recommended, should be sufficiently large to cover the whole region of the stomach.

Fomentations if they do not, open the power of eradicating the disease entirely, conduce very much to the comfort of the patient, and should be applied to the stomach and abdomen. With respect to the evacuation of the bowels I may observe, that on account of the extreme irritability of the stomach, in the commencement of an attack of this disease, that any attempt to evacuate them, by adminis-



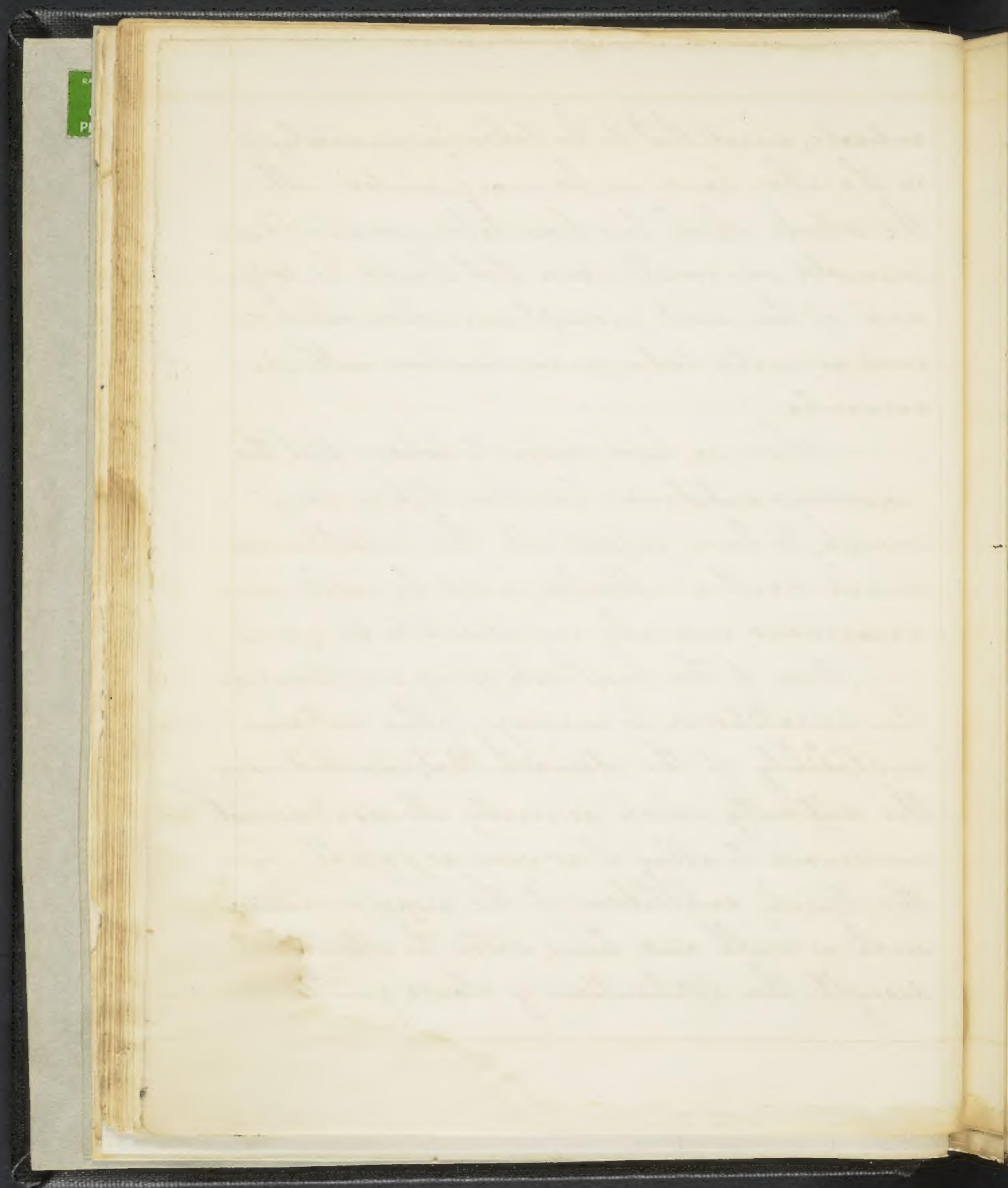
medicine by the mouth would not only be inequa-
-rious but also vain and nugatory. we must
therefore resort to mild laxative infusions for
this purpose, and one made of a pint or a
pint and a half of warm water, with the ad-
dition of a small quantity of common
lard, will answer very well; these should be
repeated frequently; for they not only act as
evacuants, but also, as ^{formulations} internally:-
as soon as the stomach will admit of it, which
may generally be known by an alleviation of
the irritability, gentle purgatives by the mouth,
should be given; such as castor oil or calomel,
the latter of which, followed by epsom salts,
is preferred by Dr. Chasman, whose profound
skill and judgment, as a practitioner of me-
dicine, stands as high as any at the present
day. When the disease has been brought on by
swallowing any acrid or poisonous substance,
we should if we are acquainted with its nature



antidote, direct that to be taken immediately; if on the other hand we be unacquainted with the article which has been taken, we should administer an emetic, and that should be large, and of the most prompt and active articles;—such as emetic tartar, in combination with ipocacuanha.

When we have reason to believe that the poisonous substance has been taken long enough, to have passed into the intestines, we should direct a cathartie, aided by mild mucilaginous and oily injections, to be given.

One of the most distressing symptoms for the practitioner to manage, is the extreme irritability of the stomach. But, notwithstanding the difficulty which generally attends it, we must endeavour to allay it as soon as possible, by the timely exhibition of the proper remedies; such as milk and lime water, the effervescent draught, the application of cloves, quitted in



a piece of flannel and dipped in warm
vinegar or brandy, and laid on the region of
that viscus, and also, lemonade which has the
twofold power of allaying the irritability, and
quenching the distressing thirst which is so
incident to this disease.

With respect to the diet of the
patient, it is hardly necessary for me to say a
word, but, suffice it to say, that it should con-
sist of the lightest and most digestible articles.

